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FORM
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Application Number	10/667,216	
Filing Date	September 19, 2003	
First Named Inventor	Mousa	
Group Art Unit	1623	
Examiner Name	To Be Assigned	
Attorney Docket Number	2747/1021	

Signature
Ruth R. Smith
Typed or printed name

Total Number of Pages in This Submission	6 Attorney Docket Number	2747/1021
	ENCLOSURES (check all that apply)	
Fee Transmittal Form Fee Attached Amendment / Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request Information Disclosure Statement Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application A copy of the Notice to Missing Parts under 37 CFR 1.52 or 1.53	Assignment Papers (for an Application)  Drawing(s)  Declaration and Power of Attorney  Licensing-related Papers  Petition  Petition to Convert to a Provisional Application  Power of Attorney, Revocation Change of Correspondence Address  Terminal Disclaimer  Request for Refund  CD, Number of CD(s)	After Allowance Communication to Group Appeal Communication to Board of Appeals and Interferences Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Application Data Sheet Request for Corrected Filing Receipt with Enclosures A self-addressed, prepaid postcard for acknowledging receipt Other Enclosure(s) (please identify below): PTO-1449 Form and 32 references
	required or credit any overpay above identified docket numb	yments to Deposit Account No. 14-1138 for the
SIGNATU	RE OF APPLICANT, ATTORNEY, OF	R AGENT
Clinton S Rochester Telephone	Clement abody LLP quare, P.O. Box 31051 , New York 14603-1051 :: (585) 263-1069 ) 263-1600	
Signature Cund	ue Aciement	Registration No. 39,946
Date May 11, 2	004 U	
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transmitted by facsimile on the (703)  May 11, 2004	e date shown below to the United State	es Patent and Trademark Office at

May 11, 2004 Date



PATENT

Docket No.: 2747/1021

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant	:	Shaker A. Mousa	Examiner:
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Serial No.	:	10/667,216	)
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Filed	:	September 19, 2003	<i>)</i> )
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For	:	OXIDIZED HEPARIN FRACTIONS AND	)
		THEIR USE IN INHIBITING ANGIOGENESIS	)

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.97-1.98

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Pursuant to 37 CFR §§ 1.97-1.98, applicant hereby brings to the attention of the United States Patent and Trademark Office, the enclosed references listed on the attached PTO-1449 form.

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Respectfully submitted,

Date: May 11, 2004

Candice J. Clement Registration No. 39,946

NIXON PEABODY LLP

Clinton Square, P.O. Box 31051 Rochester, New York 14603-1051

Telephone: (585) 263-1069 Facsimile: (585) 263-1600

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Application Number

Filing Date

Filing Date

September 19, 2003

Shaker A Mousa

			U.S. PATENT DOCUMEN	TS	
Examiner Initials	Cite No. <sup>1</sup>	U.S. Patent Document  Number - Kind Code <sup>2</sup> (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-5,092,885	03/03/1992	Yamada et al.	
	2	US-5,112,946	05/12/1992	Maione	
	3	US-5,192,744	03/09/1993	Bouck et al.	
	4	US-5,202,352	04/13/1993	Okada et al.	
	5	US-5,639,725	06/17/1997	O'Reilly et al.	
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			FOREIGN PATENT D	OCUMENTS		
Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document  Kind Co	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	т•
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Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.				
	6	Braswell, E., "Heparin: Molecular Weight and Degradation Studies," <i>Biochim. Biophys.</i> Acta 158:103-116 (1968)				
	7			on of Sulfated Disacchar		
				-Heparin) and Whale Hects," <i>J. Biochem.</i> 83:156		
	8			coagulant Activity of He ELetters 97:119-123 (19		

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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Substitute for form 1449B/PTO Complete if Known 10/667,216 Application Number INFORMATION DISCLOSURE September 19, 2003 Filing Date STATEMENT BY APPLICANT Shaker A. Mousa First Named Inventor (use as many sheets as necessary) 1623 Group Art Unit To Be Assigned **Examiner Name** Sheet of Attorney Docket Number 2747/1021

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	9	Fujita et al., "Improvement of Treadmill Capacity and Collateral Circulation as a Result of Exercise with Heparin Pretreatment in Patients with Effort Angina," Circulation 77:1022-1029 (1988)	-
	10	Rastinejad et al., "Regulation of the Activity of a New Inhibitor of Angiogenesis by a Cancer Suppressor Gene," Cell 56:345-355 (1989)	
	11	Moses et al., "Identification of an Inhibitor of Neovascularization from Cartilage," Science 248:1408-1410 (1990)	
	12	Blood et al., "Tumor Interactions with the Vasculature: Angiogenesis and Tumor Metastasis," <i>Biochim. Biophys. Acta</i> 1032:89-118 (1990)	
	13	Oikawa et al., "Angiogenic Factor of a Rat Mammary Tumor Cell Line (RMT-1) (I). Secretion of Two Distinct Angiogenic Factors into Serum-Free Conditioned Medium by RMT-1 Cells," Cancer Letters 59:57-66 (1991)	
	14	Buckley et al., "Enoxaparin: A Review of its Pharmacology and Clinical Applications in the Prevention and Treatment of Thromboembolic Disorders," <i>Drugs</i> 44:465-497 (1992)	
<del> <u>-</u></del>	15	Clapp et al., "The 16-Kilodalton N-Terminal Fragment of Human Prolactin Is a Potent Inhibitor of Angiogenesis," <i>Endocrinology</i> 133:1292-1299 (1993)	
	16	O'Reilly et al., "Angiostatin: A Novel Angiogenesis Inhibitor That Mediates the Suppression of Metastases," Cell 79:315-328 (1994)	
	17	Chen et al., "A Strategy to Discover Circulating Angiogenesis Inhibitors Generated by Human Tumors," Cancer Research 55:4230-4233 (1995)	
	18	Schnaper et al., "Plasminogen Activators Augment Endothelial Cell Organization In Vitro by Two Distinct Pathways," <i>Journal of Cellular Physiology</i> 165:107-118 (1995)	
	19	Larnkjaer et al., "Isolation and Characterization of Hexasaccharides Derived from Heparin. Analysis by HPLC and Elucidation of Structure by <sup>1</sup> H NMR," Carbohydrate Research 266:37-52 (1995)	

1	Examiner		Date		
	Signature	•	Considered		

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<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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	,			Examiner Name	To Be Assigned
Sheet	3	of	4	Attorney Docket Number	2747/1021

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Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	20	Strieter et al., "Interferon \( \gamma\)-Inducible Protein 10 (IP-10), a Member of the C-X-C Chemokine Family, is an Inhibitor of Angiogenesis," Biochemical and Biophysical Research Communications 210:51-57 (1995)	
	21	Angiolillo et al., "Human Interferon-inducible Protein 10 is a Potent Inhibitor of Angiogenesis In Vivo," J. Experimental Medicine 182:155-162 (1995)	
	22	Parangi et al., "Antiangiogenic Therapy of Transgenic Mice Impairs de novo Tumor Growth," Proc. Natl. Acad. Sci. USA 93:2002-2007 (1996)	
	23	Risau, "Mechanisms of Angiogenesis," Nature 386:671-674 (1997)	
	24	Mulloy et al., "Molecular Weight Measurements of Low Molecular Weight Heparins by Gel Permeation Chromatography," <i>Thrombosis and Haemostasis</i> 4:668-674 (1997)	
	25	Dickinson et al., "Enoxaparin Increases the Incidence of Postoperative Intracranial Hemorrhage when Initiated Preoperatively for Deep Venous Thrombosis Prophylaxis in Patients with Brain Tumors," <i>Neurosurgery</i> 43:1074-1081 (1998)	
	26	Linhardt et al., "Production and Chemical Processing of Low Molecular Weight Heparins," Seminars in Thrombosis and Haemostasis 25:5-16 (1999)	
	27	Kosir et al., "Degradation of Basement Membrane by Prostate Tumor Heparanase,"  Journal of Surgical Research 81:42-47 (1999)	
	28	Kakkar et al., "Antithrombotic Therapy in Cancer," BMJ 318:1571-1572 (1999)	
	29	Hettiarachchi et al., "Do Heparins Do More than Just Treat Thrombosis? The Influence of Heparins on Cancer Spread," <i>Thrombosis and Haemostasis</i> 82:947-952 (1999)	
	30	Mousa et al., "Comparative In Vitro Efficacy of Different Platelet Glycoprotein IIb/IIIa Antagonists on Platelet-Mediated Clot Strength Induced by Tissue Factor With Use of Thromboelastography," <i>Arterioscler. Thromb. Vasc. Biol.</i> 20:1162-1167 (2000)	

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Signature		Considered	

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	31	Arkel, "Thrombosis and Cancer," Seminars in Oncology 27:362-374 (2000)	
	32	Zacharski et al., "Low-Molecular-Weight Heparin and Cancer," Seminars in Thrombosis and Hemostasis 26:69-77 (2000)	
	33	Eriksson et al., "Fondaparinux Compared with Enoxaparin for the Prevention of Venous Thromboembolism After Hip-Fracture Surgery," N. Engl. J. Med. 345:1298-1304 (2001)	
	34	Smorenburg et al., "The Complex Effects of Heparins on Cancer Progression and Metastasis in Experimental Studies," <i>Pharmacological Reviews</i> 53:93-105 (2001)	
	35	Mousa et al., "Comparison of the Effect of Different Platelet GPIIb/IIa Antagonists on the Dynamics of Platelet/Fibrin-Mediated Clot Strength Induced Using Thromboelastography," <i>Thrombosis Research</i> 104:49-56 (2001)	
	36	Morita et al., "High Affinity Binding of Heparin by Necrotic Tumour Cells Neutralises Anticoagulant Activity," <i>Thromb. Haemost.</i> 86:616-622 (2001)	
	37	Prandoni, "Heparins and Venous Thromboembolism: Current Practice and Future Directions," <i>Thromb. Haemost.</i> 86:488-498 (2001)	

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